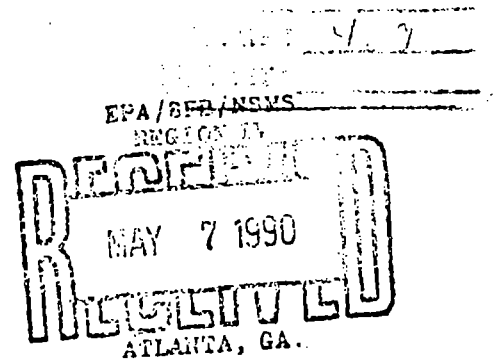


May 3, 1990

Ms. Michelle M. Glenn
US EPA Region IV
345 Courtland Street, N.E.
Atlanta, GA 30365



Dear Ms. Glenn:

In accordance with your request of April 26, 1990, Resource Applications, Inc. (RAI) has contacted a number of vendors to obtain cost information for certain remedial technologies under consideration for the Bluff Road Superfund site; specifically, low thermal desorption and in-situ soil venting. RAI also queried whether in-situ soil venting and soil vacuum extraction were identical or different treatment technologies. The general consensus within the industry was that the two terms describe the same process, which involves active removal of volatile contaminants through the use of applied air pressure.

The following is a summary of the information available at the present time. We should emphasize that the figures presented are only estimates, as complete site-specific information was not provided to the vendors. The estimates were based upon remediation of 23,000 CY or 2.6 acres of contaminated soil. RAI is expecting further data from several of the companies contacted, and will forward the supplementary items to you when available.

The following vendors provide the complete remedial service. Emissions control costs are included in the costs of the treatment technologies; excavation and backfilling costs are not included for thermal desorption estimates.

BioTrol, Inc.

(612) 448-2515

Contact: Jack Sheldon
Remedial Technology Discussed: In-situ soil venting
Treatment Cost: \$40-60/CY (\$920,000-1,380,000)
Pilot Test Cost: \$7,000-20,000

Terra Vac Corporation

(813) 885-5374

Contact: Ed Malmanis (note: Mr. Malmanis stated that he authored the technical documentation on this remedial technology on behalf of the SCRDI-Bluff Road PRPs.)

Remedial Technology Discussed: In-situ soil venting
Treatment Cost:

Estimate for remediation of 23,000 CY under general conditions:
\$32.60-75/CY (\$750,000-1,725,000)

Costs quoted to PRPs based on site-specific information, per Mr. Malmanis (with the volume of contaminated soil specified as 16,667 CY): \$12-18/CY (\$200,000-300,000)

Pilot Test Cost: \$40,000-50,000



Dames & Moore

(404) 262-2915

Contact: Bob Moore

Remedial Technology Discussed: In-situ soil venting

Treatment Cost: \$6.70-8/CY (\$154,000-184,000), operation & maintenance not included.

Pilot Test Cost: \$200,000

Remedial Technology Discussed: Low thermal desorption

Treatment Cost: \$250/CY (\$5,750,000)

Pilot Test Cost: Not provided.

Harmon Environmental Services

(800) 325-0011

(formerly Envirite, Inc.)

Contact: Hal Wood

Remedial Technology Discussed: Low thermal desorption

Treatment Cost: \$50-75/ton (\$1,840,000-2,760,000)

Pilot Test Cost: Not provided.

Enviropact

(800) 234-0116

Contact: Ralph Barbar

Remedial Treatment Discussed: Low thermal desorption

Cost: \$1.30-8.70/CY (\$30,000-200,000)

Pilot Test Cost: \$30,000

Roy F. Weston, Inc.

(404) 448-0644

Contact: Robin Brody

Remedial Treatment Discussed: Low thermal desorption

Cost: \$80-120/CY (\$1,840,000-2,760,000)

Pilot Test Cost: \$5,000-10,000

Hydro Group

(201) 563-1400

(Environmental Products Group)

Contact: Frank Lernzo, P.E.

Remedial Treatment Discussed: Low thermal desorption

Cost: \$ To follow

The following vendors deal in equipment sales and leasing, and do not provide full remediation services (e.g., engineering design and implementation):

Combustion Engineering, d/b/a ABB Raymond
(Formerly CE Raymond)

(404) 394-2616

Contact: Larry Morton

Remedial Treatment Discussed: Low thermal desorption with optional off-gas condensing.

Cost: To follow from vendors with CE equipment after clearance of confidentiality agreements.

Carbtrol Corporation

(800) 242-1150

Contact: Ken Kikta

Remedial Technology Discussed: In-situ soil venting

Basic Unit Cost: 5-105 CF/min capacity, \$18,400

50-375 CF/min capacity, \$21,900

(emissions control equipment not included)

ORS Environmental Equipment

(800) 228-2310

Contact: Name not noted.

Remedial Technology Discussed: In-situ soil venting

Basic Unit Cost: 98 CF/min capacity, \$4,200

280 CF/min capacity, \$7,500

(emissions control equipment and inground piping not included)

The following is a list of companies contacted, from whom we expect to receive further information:

Chemical Waste Management, Inc.
VFL Technology Corporation
Westinghouse Environmental &
Geotechnical Services, Inc.
Enviro/Analysis Corporation
Enviro South

Waste Conversion, Inc.
EnvironTherm Technology
Environmental Solutions, Inc.
7-7, Inc.
Remedial Systems, Inc.
Geo-Con, Inc.

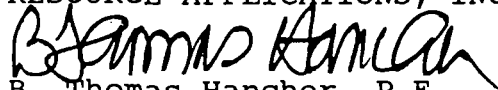
The following are vendors contacted who did not provide technical/cost information:

ThermalKEM
Tenerx Corporation
Laidlaw Environmental
Zimpro Passavant
National Environmental
Systems, Inc.

Davis Combustion Systems, Inc.
J. T. Thorpe
Groundwater Control, Inc.
Envirex
Enviroscan, Inc.

Sincerely,

RESOURCE APPLICATIONS, INC.



B. Thomas Hancher, P.E.
Vice President